HARRIS

Magnetic Cable and Cord Clips

The Solution to Hazards Caused by Loose Cords.

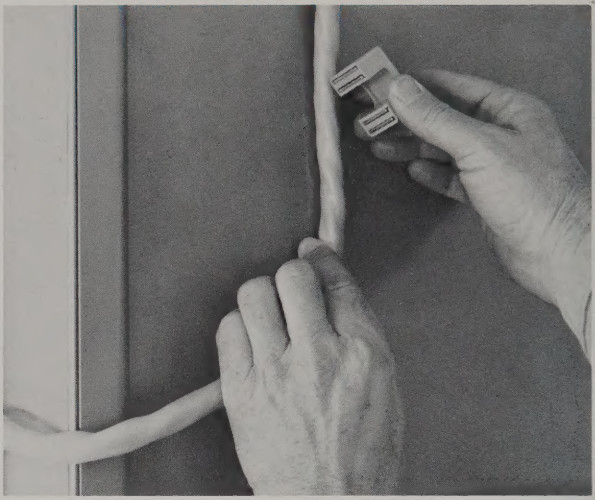
- Promotes Safety
- Requires no installation
- Easy to re-arrange
- Encourages Neatness
- Unlimited versatility

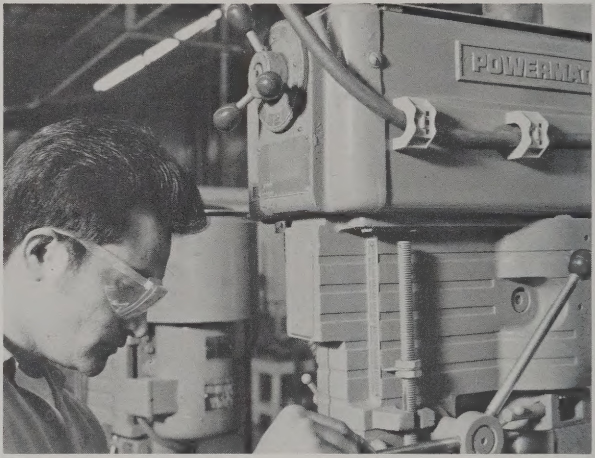
Cable and cord clips are designed to safely fasten loose electrical cords and cables off of the floor within the work station to reduce the danger of accidents.

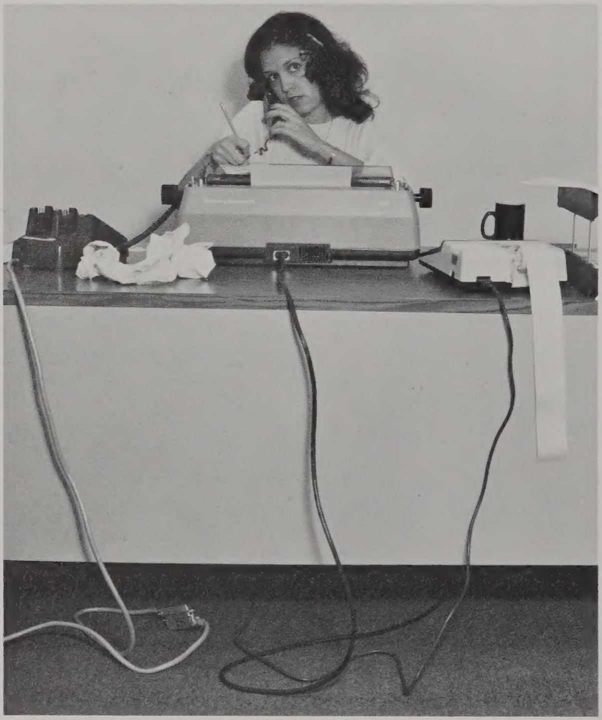
Dracon magnetic clips are easy to use. Magnets eliminate the need to drill holes or use glue, thus no damage is done to mounting surface. The clips can be attached to any ferrous metal surface and easily relocated when needed.

Neatness is encouraged by keeping excess telephone, office machine and appliance cords neatly coiled and fastened to back, side or knee well of desk.

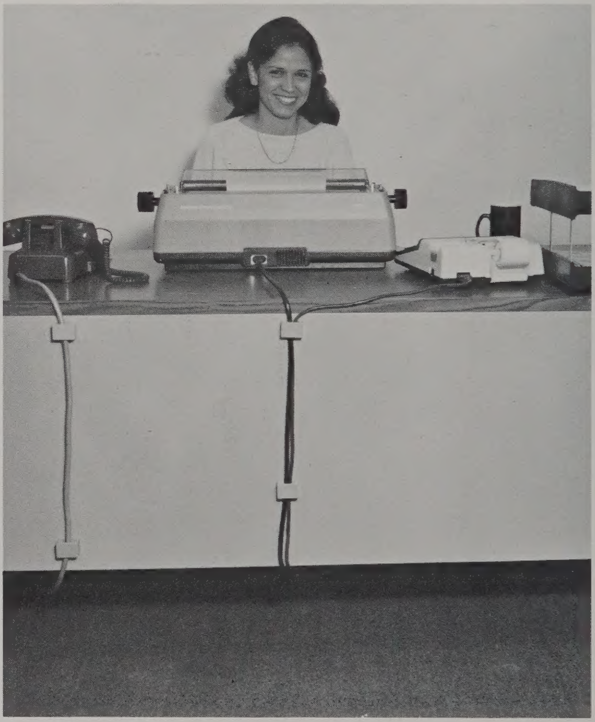
Clips can be adapted to meet a variety of needs. Unlimited versatility has been shown by offices and shops everywhere by using clips as paper hangers, coat hooks, tool hangers and for supporting pneumatic or hydraulic tubing and heavy equipment power cords to steel machine surfaces.







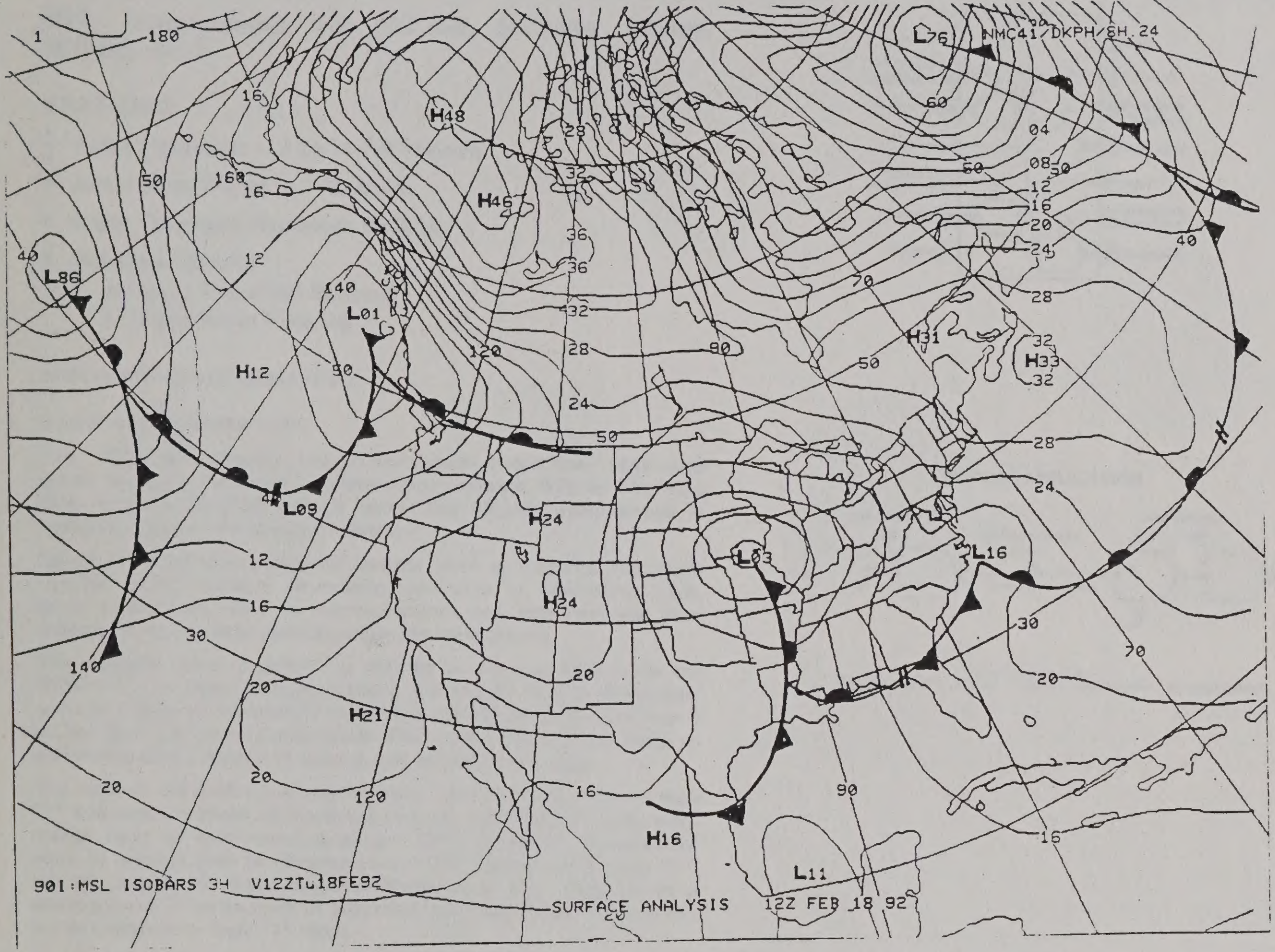
BEFORE. . . Loose cords may cause accidents and present an untidy appearance.



AFTER. . . Safe, clean and neat.

APR 2 0 1992

WORLDWIDE MARINE RADIOFACSIMILE BROADCAST SCHEDULES



U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL WEATHER SERVICE

MARINE OBSERVATION PROGRAM
FEBRUARY 1992

TECHNICAL DATA

AN EXCLUSIVE RADIO SHACK SERVICE TO THE EXPERIMENTER

QUAD LINE RECEIVER

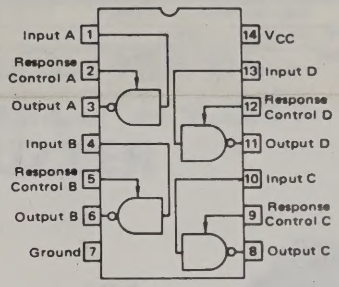
The 1489 monolithic quad line receiver is designed to interface data terminal equipment with data communications equipment in conformance with the specifications of EIA Standard No. RS-232C.

Fully interchangeable with MC1489, SN75189, DS1489, XR1489, etc.

FEATURES:

- Input Resistance — 3.0k to 7.0 kilohms
- Input Signal Range ± 30 Volts
- Input Threshold Hysteresis Built In
- Response Control
  - a) Logic Threshold Shifting
  - b) Input Noise Filtering

PIN CONNECTIONS



APPLICATIONS INFORMATION

GENERAL INFORMATION

The 1489 quad receiver and its companion circuit the 1489 quad driver, provide a complete interface system between DTL or TTL logic levels and the RS-232C defined levels. The RS-232C requirements as applied to receivers are discussed herein.

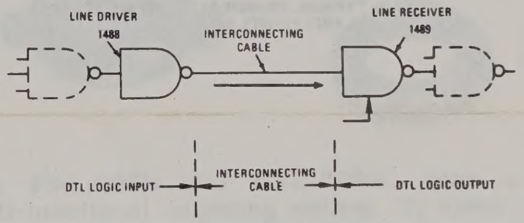
Useful for interfacing peripheral devices (such as modems, ham radio terminal units, auxillary keyboards, controller or controlling units, sound synthesizers, etc.) to microcomputers and data terminals. Also suitable for mixing logic families within the same circuit.

The required input impedance is defined as between 3000 ohms and 7000 ohms for input voltages between 3.0 and 25 volts in magnitude: and any voltage on the receiver input in an open circuit condition must b be less than 2.0 volts in magnitude. The 1489 circuit meets these requirements with a maximum open circuit voltage of one V_{BE}.

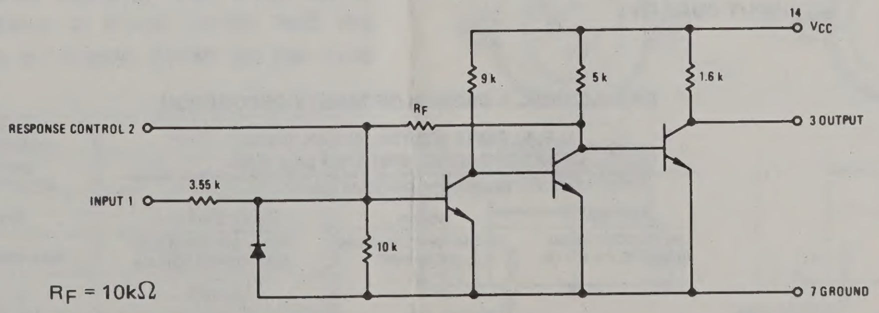
The receiver will detect a voltage between –3.9 and –25 volts as a logic "1" and inputs between +3.0 and +25 volts as a logic "0". On some interchange leads, an open circuit or power "OFF" condition (300 ohms or more to ground) shall be decoded as an "OFF" condition or logic "1". For this reason, the input hysteresis threshold of the 1489 circuit is above ground. Thus an open or grounded input will cause the same output as a negative or logic "1" input.

A separate response control terminal is provided for each receiver. A resistor or resistor and bias voltage source may be connected between this terminal and ground to shift the input threshold voltage levels. An external capacitor (typically 0.1 MFD) may be connected between this terminal and ground to provide input noise filtering.

TYPICAL APPLICATION



CIRCUIT SCHEMATIC (1/4 OF CIRCUIT SHOWN)



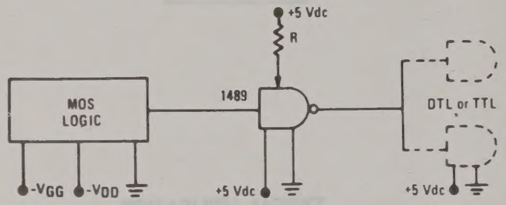
CUSTOM PACKAGED IN U.S.A. BY RADIO SHACK, A DIVISION OF TANDY CORPORATION

ELECTRICAL CHARACTERISTICS (RESPONSE CONTROL PIN IS OPEN.) (V_{CC} = +5.0 Vdc ±1%. T_A = 0 to +75°C UNLESS OTHERWISE NOTED)

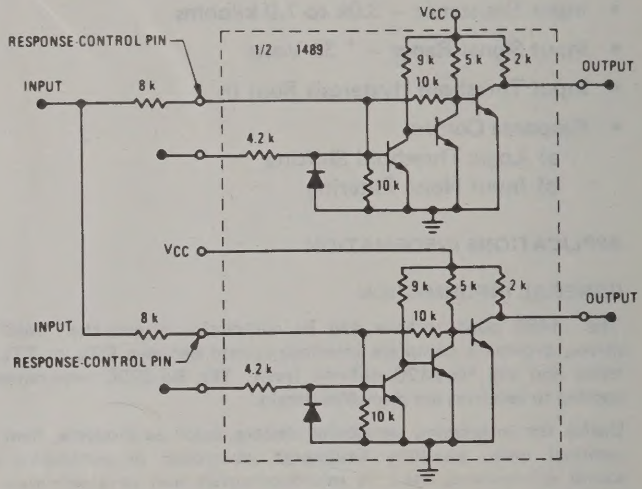
CHARACTERISTICS		SYMBOL	MIN	TYP	MAX	UNIT
POSITIVE INPUT CURRENT	(V_{IH} = +25 Vdc)	I_{IH}	3.6	–	8.3	mA
	(V_{IH} = +3.0 Vdc)		0.43	–	–	
NEGATIVE INPUT CURRENT	(V_{IL} = –25 Vdc)	I_{IL}	–3.6	–	–8.3	mA
	(V_{IL} = –3.0 Vdc)		–0.43	–	–	
INPUT TURN-ON THRESHOLD VOLTAGE (T_A = +25°C, $V_{OL} \leqq$ 0.45 V)		V_{IHL}	1.0	–	1.5	Vdc
INPUT TURN-OFF THRESHOLD VOLTAGE (T_A = +25°C, $V_{OH} \geqq$ 2.5 V, I_L = –0.5 mA)		V_{ILH}	0.75	–	1.25	Vdc
OUTPUT VOLTAGE HIGH	(V_{IH} = 0.75 V, I_L = –0.5mA)	V_{OH}	2.6	4.0	5.0	Vdc
	(Input Open Circuit, I_L = –0.5 mA)		2.6	4.0	5.0	
OUTPUT VOLTAGE LOW	(V_{IL} = 3.0 V, I_L = 10 mA)	V_{OL}	–	0.2	0.45	Vdc
POWER SUPPLY CURRENT	(V_{IH} = +5.0 Vdc)	I_{CC}	–	20	26	mA
POWER CONSUMPTION	(V_{IH} = +5.0 Vdc)	P_C	–	100	130	mW

MAXIMUM RATINGS (T_A = +25°C UNLESS OTHERWISE NOTED)

RATING	SYMBOL	VALUE	UNIT
POWER SUPPLY VOLTAGE	V_{CC}	10	Vdc
INPUT VOLTAGE RANGE	V_{IR}	±30	Vdc
OUTPUT LOAD CURRENT	I_L	20	mA
OPERATING AMBIENT TEMPERATURE RANGE	T_A	0 to +75	°C



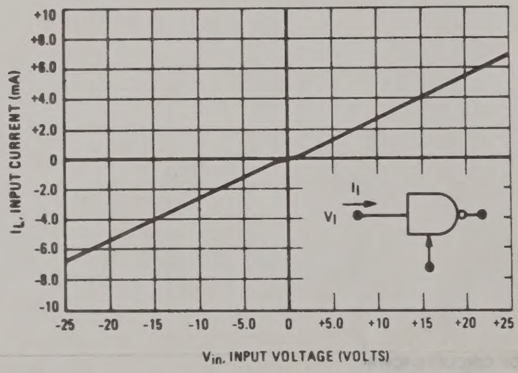
TYPICAL TRANSLATOR APPLICATION – MOS TO DTL OR TTL



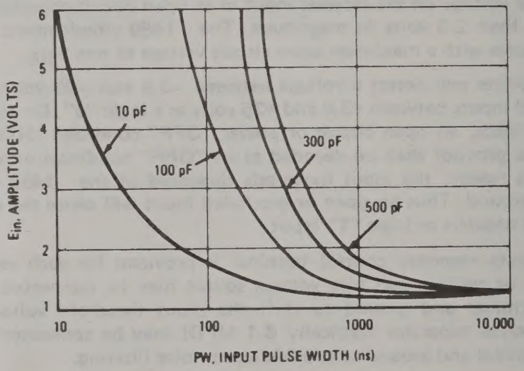
TYPICAL PARALLELING OF TWO 1489 RECEIVERS TO MEET RS-232C

TYPICAL CHARACTERISTICS

(V_{CC} = 5.0 Vdc, T_A = +25°C unless otherwise noted)



INPUT CURRENT



TURN-ON THRESHOLD versus CAPACITANCE FROM RESPONSE CONTROL PIN TO GND

RADIO SHACK, A DIVISION OF TANDY CORPORATION

U.S.A.: FORT WORTH, TEXAS 76102
CANADA: BARRIE, ONTARIO L4M 4W5

TANDY CORPORATION

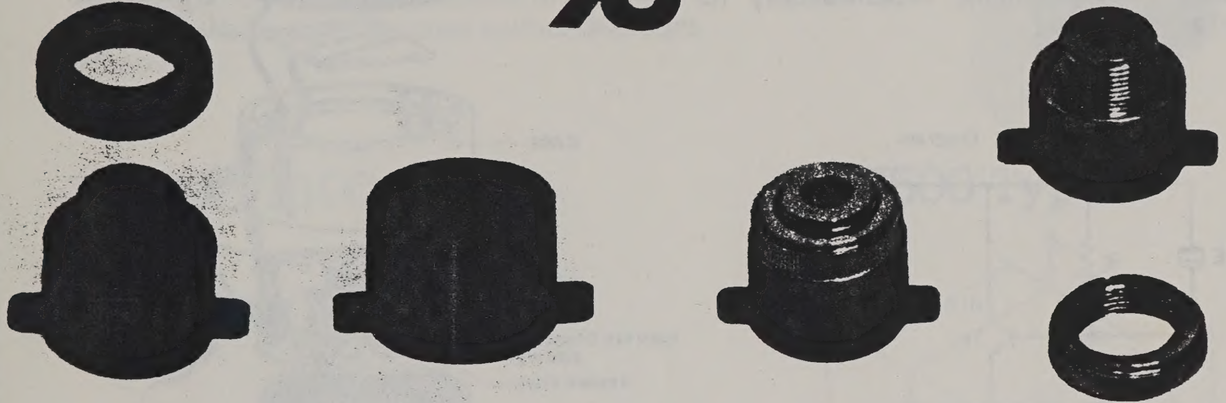
AUSTRALIA	BELGIUM	U. K.
280-316 VICTORIA ROAD RYDALMERE, N.S.W. 2116	PARC INDUSTRIEL DE NANINNE 5140 NANINNE	BILSTON ROAD WEDNESBURY WEST MIDLANDS WS10 7JN

Printed in U.S.A.

P.A.L. 328 Series

ELECTRONIC PIEZO-A-LERT BUZZER

LISTED AS UL RECOGNIZED COMPONENT

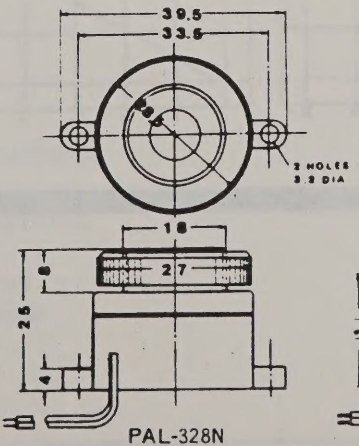


The Piezo-A-Lert is an advanced electronic audible signal device that emits a compelling sound on a minimum current. This solid state device operates from as little as 3 volts DC to as much as 28 volts DC and is rated at 20 mA. Sound output is proportional to input voltages and ranges from a minimum of 68dB to over 100dB at 28VDC at one foot. The piezo-electronic contact points give it high reliability and an exceptional long life. The Piezo-A-Lert signal operates in free air only. This means that it can be used for any purpose with the exception of underwater. The recommended operating temperature range is from –25° C to –70° C.

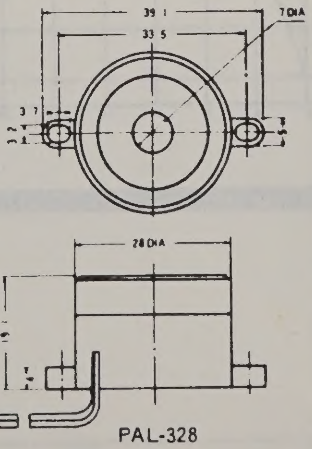
This U.L. recognized Piezo-A-Lert is available in three models. The PAL-328N, and PAL-328 have a black finish and the PAL-328NC has a chrome finish on the face and nut.

Rated Voltage (Operating Voltage)	DC 3~28V
Rated Current (Operating Current)	20mA Max. at 28V DC.
Power Output	93 dB at 1 meter
Operating Temperature	–25° C~+70° C
Expected Life	250 hrs.
Starting Voltage	1.0 V Max.

The PAL-328N and PAL-328NC have a multi-functional mounting method. By simply unscrewing the face nut it can be inserted into any standard ¾ inch knockout hole and by screwing the nut back in place you have a solid mounting. On the base, located to either side are two loops. Insert screws and the unit can be surface mounted. The PAL-328 model can only be installed utilizing the two loops with screws.



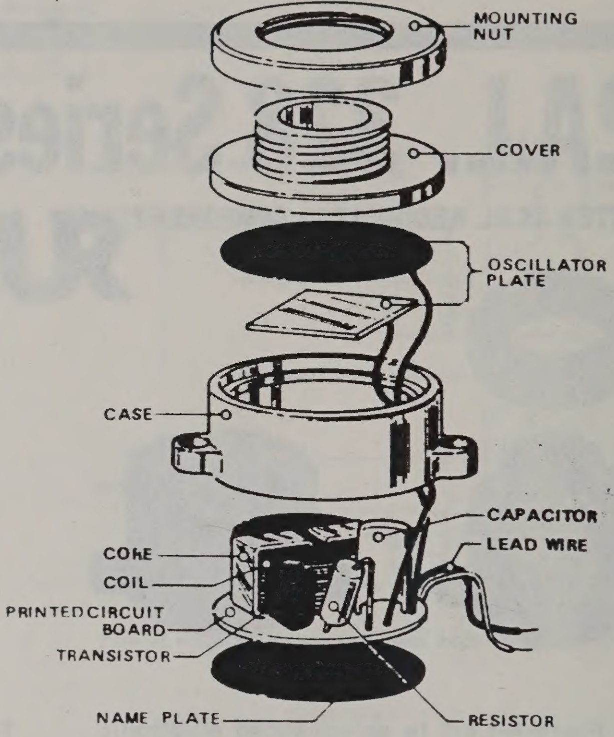
PAL-328N



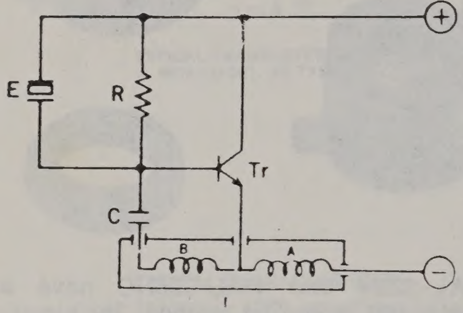
PAL-328

The PAL-328 series Piezo buzzers operate when an audible frequency is applied from a transistor to an oscillator plate containing a piezo-electric element and a metalic vibrating plate.

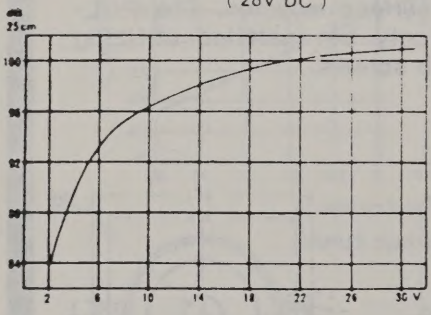
It is important when installing the PAL Series Buzzer within any enclosed area to remove any obstruction in front of the buzzer for it may deflect and prevent the sound of the buzzer from reaching the outside. Any object too close to the buzzer may minimize the sound of the buzzer. Please observe these points when installing the buzzer, and determine experimentally for the best location.



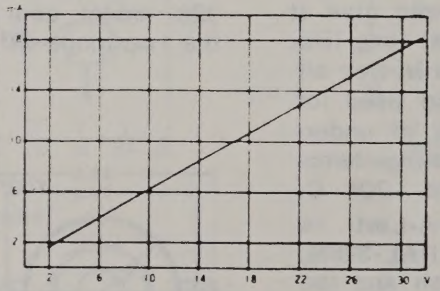
■ Circuit Diagram



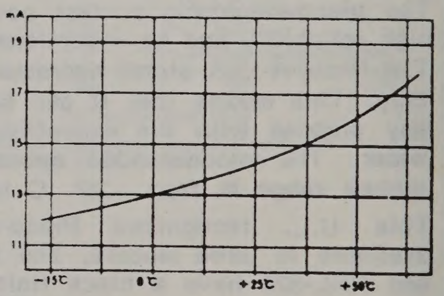
■ Sound Output – Voltage
(28V DC)



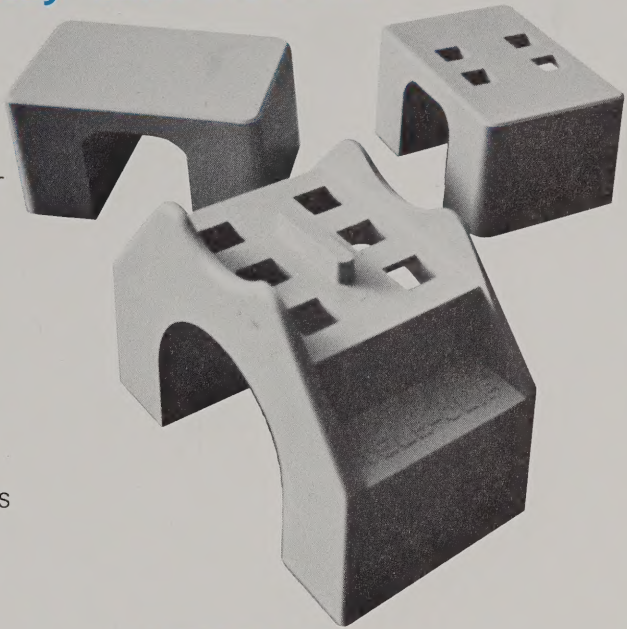
■ Voltage - Current
(28V DC)



■ Current – temperature
(28V DC)



Quick and Easy to Install . . . No Holes to Drill and No Messy Glue Needed

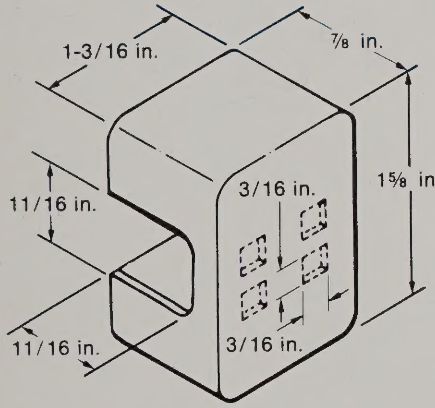


The smaller type **17000** and **17100 Cable Clips** are designed to hold a 25-pair telephone cable or several small appliance cords. The four square holes on the top surface of the 17100 enable additional cables to be secured with nylon cable ties laced through the holes.

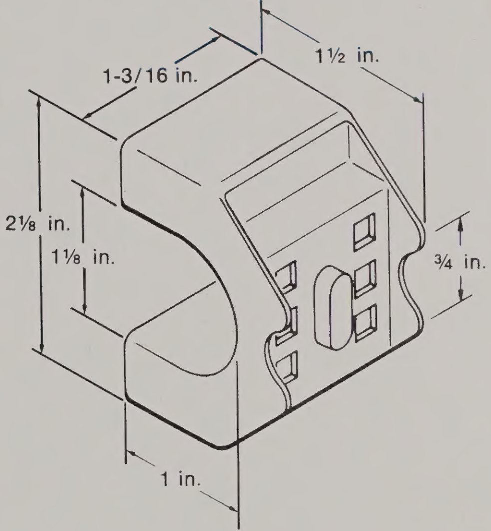
The larger **17500** type clip is designed to hold a 100-pair telephone cable or up to 1 inch tubing. There are also holes provided to lace additional cords to the top of the clip.

The amount of direct pull required to separate these clips from a painted steel surface averages 15 pounds.

17000/17100 Type



17500 Type



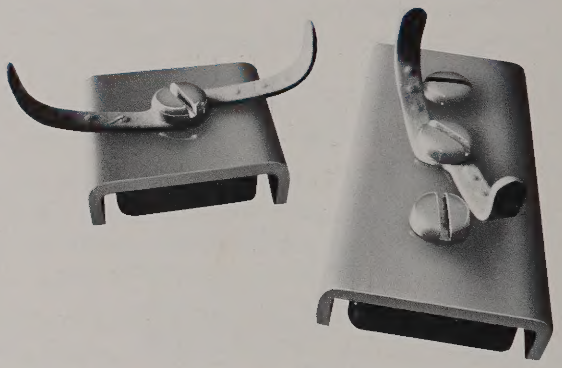
Ordering Information

Specify: Quantity desired and full part number (be sure part number coincides with color and style desired).

Part Number	Description
17000-000	Type 17000, Gray
17000-100	Type 17000, Beige
17100-000	Type 17100 with additional holes, Gray
17100-100	Type 17100 with additional holes, Beige
17500-000	Type 17500 large clip, Gray
17500-100	Type 17500 large clip, Beige

HARRIS

Wrap-Around Clasp Keeps Excess Cable Where You Put it . . .



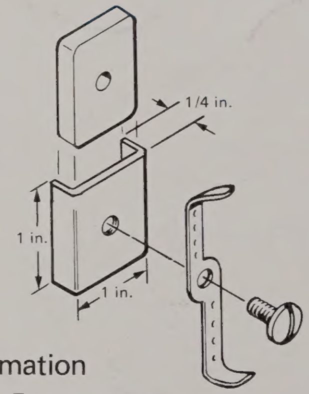
These handy wrap-around clasps incorporate either a single or double magnet assembly to provide sufficient holding power. The amount of direct pull required to separate these magnets from a painted steel surface averages 5 pounds for the single magnet style and 11-1/2 pounds for the double magnet style.

The magnets are encased in cadmium painted steel which is finished in a durable and attractive gold iridite coating. The wrap-around clasp will easily secure a 25-pair cable (approximately 7/16 inch diameter) or a similar size cable, cord or tubing.

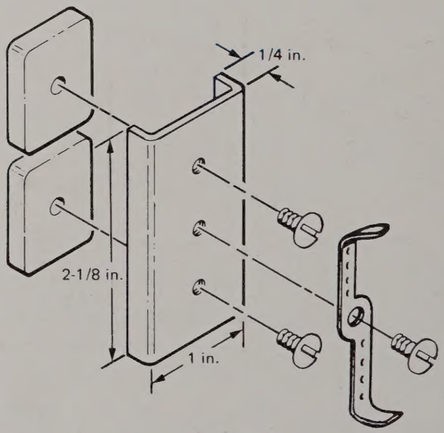
The double-magnet style has extra clasp mounting screws which allow them to hold two cables with the addition of another clasp. Extra clasps may be ordered separately, see ordering information below.

All cable clips and wrap-around clasps come assembled and ready to use.

17250 Type



17350 Type



Ordering Information

Part Number	Description
17250-000	Wrap-around Clasp, single magnet assembly.
17350-000	Wrap-around Clasp, double magent assembly.
17260-000	Clasp only.

Magnetic Cable Clips type 17250 and 17350 are patented under U.S. Patent Number 3,598,900.

Magnetic Cable Clips are readily available in a choice of gray or beige.

HARRIS CORPORATION Dracon Division
9541 Mason Avenue, Chatsworth, California 91311, U.S.A.
Tel. 213/882-8595; Cable: DRACON, Chats., CA.; Telex: 182327

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